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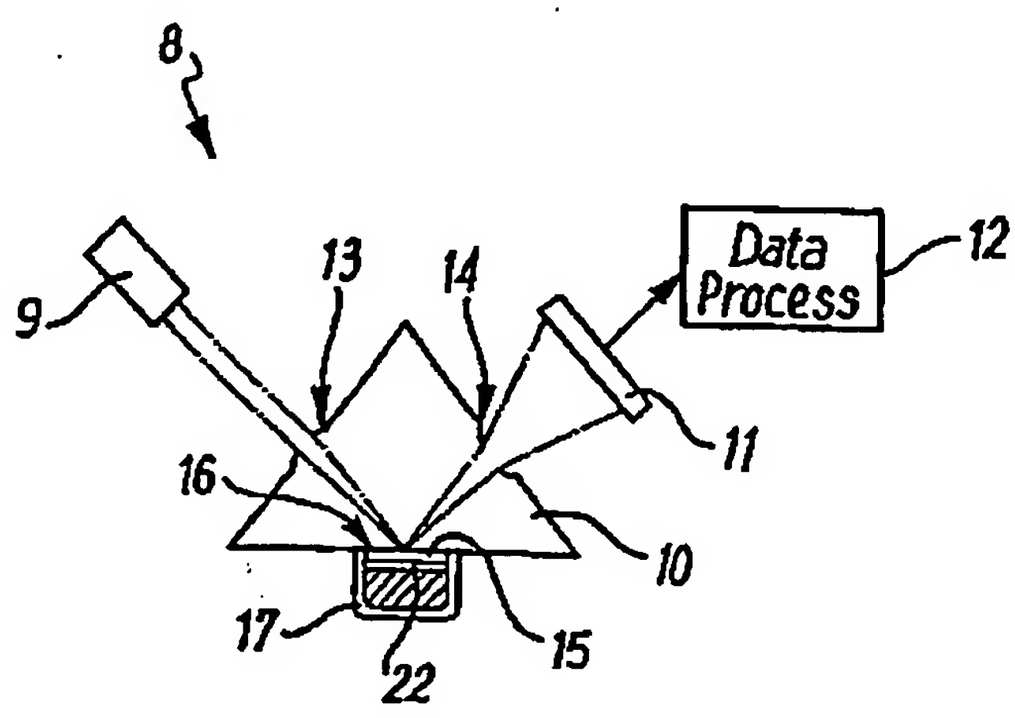
(54) Title: SURFACE PLASMON RESONANCE SENSOR



(57) Abstract: An improved Surface Plasmon Resonance Sensor (8) is described that is compact, simple to align and cost effective to produce, thus making the device highly mobile and so ideal for field applications. These characteristics are achieved through the employment of a pre-formed cartridge (10) that provides for the required manipulation of a beam of light (2) used within the surface plasmon resonance process. The cartridge (10) is easily interchangeable and so provides a high degree of flexibility to the sensor (8). The device therefore provides a fast and simple means for the on site testing of fluids for the presence of harmful fluid borne bacterium. Particular application of the device is the testing of water samples obtained from industrial or recreational sources for the presence of the *Legionella bacteria*.

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